10

Figure 1: Product Parameters that Influence Perfume Performance in Diluted PW Products

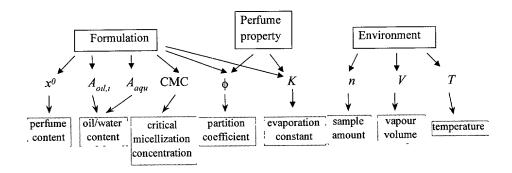
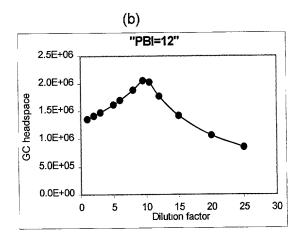
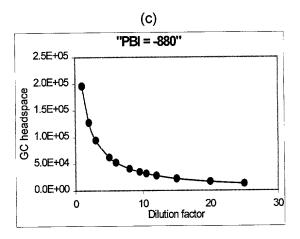


Figure 2: Theoretical Calculations of Fragrance Burst with Dilution

(a) "PBI = 700" 1.E+05 8 E+04 GC headspace 6.E+04 4 E+04 2.E+04 0.E+00 30 Dilution factor

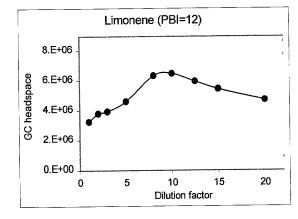


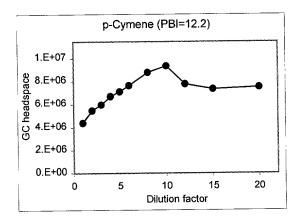


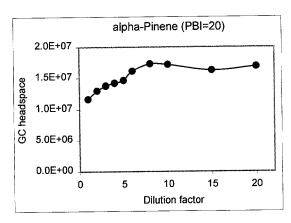
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Figure 3: Fragrance Burst Profiles of Different Perfume Molecules in Surfactant Solution (5% sodium laurate solution)









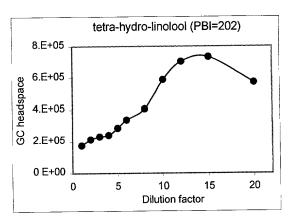
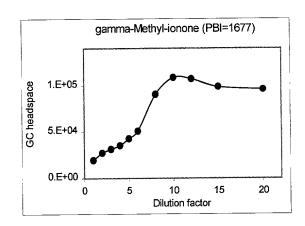


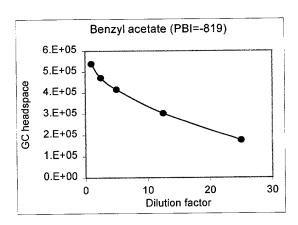
Figure 3: Fragrance Burst Profiles of Different Perfume Molecules in Surfactant Solution (5% sodium laurate solution) (Cont'd)

alpha-lonone (PBI=1692)

1.5E+05

8
8
1.0E+05
0 5.0E+04
0 0E+00
0 5 10 15 20
Dilution factor





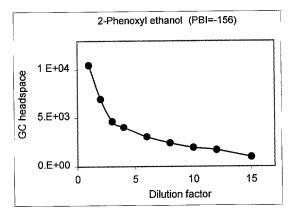
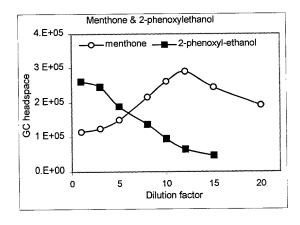


Figure 4: Two-components Fragrances in Shower Liquid that Change Note upon Dilution



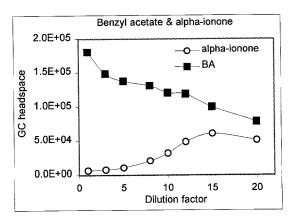
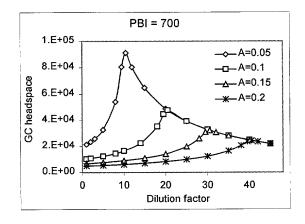
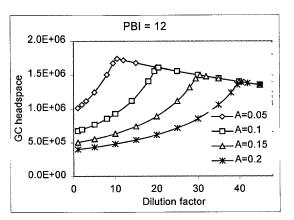


Figure 5: Theoretical Models of Fragrance Burst with Change in Surfactant Concentration





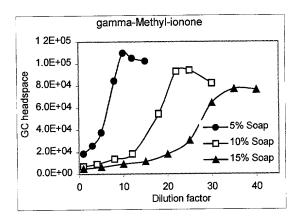
A: The concentration of the surfactant (wt/wt).

15

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Figure 6: Experimental Results of Fragrance Burst with Changes in Surfactant Concentration

Limonene 2.5E+06 x 20% Soap ▲ 15% Soap 2.0E+06 ___10% Soap GC headspace 5% Soap 1.5E+06 1.0E+06 5.0E+05 0.0E+00 20 Dilution factor 40 30 0 10



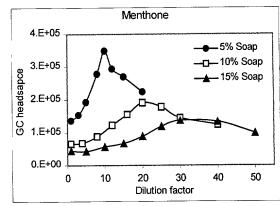


Figure 7: Theoretical Model of Fragrance Burst with Change in Surfactant CMC

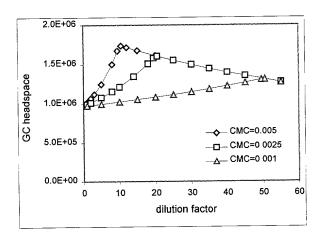
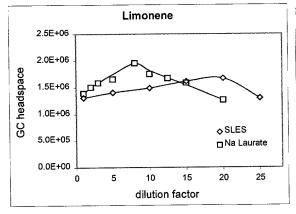


Figure 8: Experimental Results of Fragrance Burst with Change in CMC



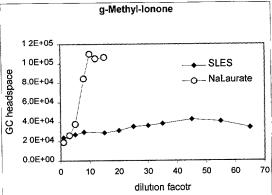


Figure 9: Normalized Dilution Curve for Component in a Perfume Mixture

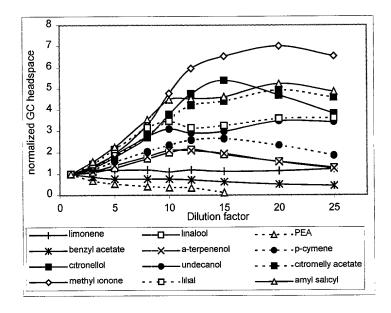


Figure 10: Results of Panel Study of the Single Perfume (γ -methyl-ionone) Systems

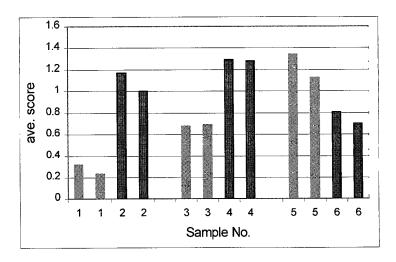


Figure 11: Results of Panel Study of the Multi-component Perfume (menthone, tetrahydrol-linalool, α -ionone, γ -methyl-ionone) Systems

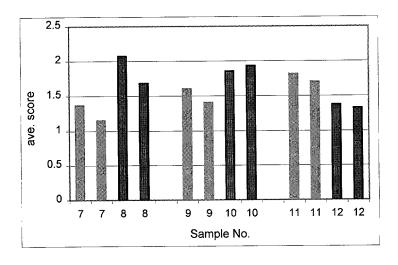
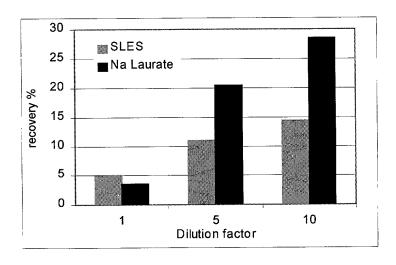


Figure 12: Deposition of a Type 2 Perfume, γ -Methyl-Ionone, from Surfactant Systems (Na Laurate and SLES) with Different CMCs



5

Figure 13: Deposition of Multi-component Perfume (menthone, tetra-hydrol-linalool, α -ionone, γ -methyl-ionone) from Surfactant Systems (Na Laurate and SLES) with Different CMCs

SLES
Na Laurate

- menthone, t-h-linalool, a-ionone and g-m-ionone refer to the samples with around 0.125% of menthone, tetra-hydro-linalool, α-ionone and γ-methyl-ionone in 5% sodium laurate or SLES surfactant systems, respectively.
- menthone-10, t-h-linalool-10, a-ionone-10 and g-m-ionone-10 refer to the 10 times diluted samples with around 0.125% of menthone, tetra-hydro-linalool, α -ionone and γ -methyl-ionone in 5% sodium laurate or SLES surfactant systems, respectively.